Midterm practice: Solve with completing the square

1. Use completing-the-square to solve the equation: $x^2 + 10x - 3 = 20$

2. Use completing-the-square to solve the equation: $x^2 - 10x + 3 = 86$

3. Use completing-the-square to solve the equation: $x^2 - 8x - 5 = 6$

4. Use completing-the-square to solve the equation: $x^2 - 12x + 8 = 26$

5. Use completing-the-square to solve the equation: $x^2 + 6x + 3 = 174$

6. Use completing-the-square to solve the equation: $x^2 - 10x - 5 = 82$

7. Use completing-the-square to solve the equation: $x^2 - 6x - 8 = -9$

8. Use completing-the-square to solve the equation: $x^2 + 18x + 4 = -57$

9. Use completing-the-square to solve the equation: $x^2 - 6x + 4 = 35$

10. Use completing-the-square to solve the equation: $x^2 + 16x - 5 = 93$

11. Use completing-the-square to solve the equation: $x^2 + 16x - 8 = -44$

12. Use completing-the-square to solve the equation: $x^2 + 8x + 2 = 133$

13. Use completing-the-square to solve the equation: $x^2 - 14x - 5 = 74$

14. Use completing-the-square to solve the equation: $x^2 - 14x + 1 = 152$

15. Use completing-the-square to solve the equation: $x^2 - 8x + 4 = 42$

16. Use completing-the-square to solve the equation: $x^2 - 6x - 6 = 97$

17. Use completing-the-square to solve the equation: $x^2 - 14x - 3 = 20$

18. Use completing-the-square to solve the equation: $x^2 + 14x + 8 = 57$

19. Use completing-the-square to solve the equation: $x^2 - 8x - 5 = 126$

20. Use completing-the-square to solve the equation: $x^2 + 8x + 5 = 43$

19. $x = 4 \pm 7\sqrt{3}$

1. $x = -5 \pm 4\sqrt{3}$

11. $x = -8 \pm 2\sqrt{7}$

12. $x = -4 \pm 7\sqrt{3}$

15. $x = 4 \pm 3\sqrt{6}$

6. $x = 5 \pm 4\sqrt{7}$

7. $x = 3 \pm 2\sqrt{2}$

17. $x = 7 \pm 6\sqrt{2}$

16. $x = 3 \pm 4\sqrt{7}$

2. $x = 5 \pm 6\sqrt{3}$

9. $x = 3 \pm 2\sqrt{1}0$

18. $x = -7 \pm 7\sqrt{2}$

13. $x = 7 \pm 8\sqrt{2}$

5. $x = -3 \pm 6\sqrt{5}$

4. $x = 6 \pm 3\sqrt{6}$

8. $x = -9 \pm 2\sqrt{5}$

20. $x = -4 \pm 3\sqrt{6}$

3. $x = 4 \pm 3\sqrt{3}$

10. $x = -8 \pm 9\sqrt{2}$

14. $x = 7 \pm 10\sqrt{2}$